WHAT IS CLAIMED IS:

1. A method of generating pixels in a graphics system comprising:

   providing a plurality of sub-samples;

   providing a source pixel;

   determining which of the plurality of sub-samples are covered by the source pixel, and which of the plurality of sub-samples are not covered by the source pixel;

   filtering the sub-samples which are covered by the source pixel;

   blending the filtered sub-samples with the source pixel to create a blended sub-sample; and

   filtering the sub-samples which are not covered by the source pixel together with the blended sub-sample.

2. The method of claim 1 wherein the filtering the sub-samples which are covered by the source pixel, is done by averaging the sub-samples which are covered by the source pixel.

3. The method of claim 2 wherein the filtering the sub-samples which are not covered by the source pixel together with the blended sub-sample, is done by averaging the sub-samples which are not covered by the source pixel together with the blended sub-sample.

4. The method of claim 3 further comprising before the filtering the sub-samples which are not covered by the source pixel together with the blended sub-sample, weighting the blended sub-sample.

5. The method of claim 4 further comprising before weighting the blended sub-sample, determining the number of covered sub-samples,
   and wherein the weighting of the blended sub-sample is done by multiplying the blended sub-sample by number of covered sub-samples.

6. The method of claim 1 further comprising replacing the sub-samples which are covered by the source pixel with the blended sub-sample.

7. An apparatus for generating pixels in a graphics system comprising:

   a memory for storing and providing sub-samples;

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3   a graphics pipeline for providing an image, and determining which sub-

4   samples are covered by the image, and which sub-samples are not covered by the image;

5   a first filter for filtering covered sub-samples and providing a first filter

6   output;

7   a blender for blending the image with the output of the first filter and

8   providing a blender output;

9   a second filter for filtering the blender output with the sub-samples which are

10   not covered by the image.

1   8.   The apparatus of claim 7 wherein the first filter and the second filter

2   are averaging circuits.

1   9.   The apparatus of claim 8 wherein the second filter is also for weighting

2   the blender output.

1   10.   The apparatus of claim 7 wherein the blender output provides a new

2   sub-sample, and where the new sub-sample replaces in memory the sub-samples covered by

3   the image.

1   11.   An apparatus for generating pixels in a graphics system comprising:

2   a sub-sample memory having an first output and a second output;

3   a first filter having an input coupled to the first sub-sample memory output;

4   a blender having an output, a first input, and a second input, the first input

5   coupled to the first filter output;

6   a graphics pipeline having an output coupled to the second blender input; and

7   a second filter having a first input and a second input, the first input coupled to

8   the second sub-sample memory output and the second input coupled to the blender output.

1   12.   The apparatus of claim 11 wherein the sub-sample memory stores a

2   plurality of sub-samples which are associated with a pixel, and wherein the graphics pipeline

3   provides a source pixel, and determines which of the sub-samples associated with the pixel

4   are covered by the source pixel, and which of the sub-samples associated with the pixel are

5   not covered by the source pixel.

1   13.   The apparatus of claim 12 wherein the sub-sample memory outputs on

2   the first sub-sample memory output the sub-samples associated with the pixel which are

3 covered by the source pixel, and outputs on the second sub-sample memory output the sub-
4 samples associated with the pixel which are not covered by the source pixel.

1 14. The apparatus of claim 13 wherein first filter averages the sub-samples
2 at its input, and outputs an average, and the blender blends the signals at its inputs, and
3 outputs a blend.

1 15. The apparatus of claim 14 wherein the second filter filters the sub-
2 samples at its first input and the blend at its second input.

1 16. The apparatus of claim 15 wherein the second filter further comprises
2 an output for providing a pixel.

1 17. A computer system comprising:
2 a central processing unit (CPU);
3 a main memory coupled to the CPU; and
4 an apparatus for generating pixels in a graphics system as set forth in claim 11,
5 coupled to the CPU.

1 18. An apparatus for generating pixels in a graphics system comprising:
2 a memory for storing sets of a first number of sub-samples, where each set of
3 sub-samples is associated with a pixel;
4 a second number of filters, each filter coupled to the memory; and
5 a third number of blenders, each coupled to one of the second number of
6 filters,
7 wherein the third number is less than the first number.

1 19. The apparatus of claim 18 wherein the third number is one.

1 20. The apparatus of claim 19 wherein the first number is 4.

1 21. The apparatus of claim 19 wherein the first number is 8.

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